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JUNE 26, 2000

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ARTER & HADDEN LLP VIVIANA AMZEL, PH.D. PTAS

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ASSIGNOR:

NYCE, JONATHAN W.

DOC DATE: 06/28/1999

ASSIGNOR:

METZGER, W. JAMES

DOC DATE: 04/15/1999

ASSIGNEE:

EAST CAROLINA UNIVERSITY 2106 SPILMAN BUILDING GREENVILLE, NORTH CAROLINA

27858-4353

SERIAL NUMBER: 09543679

PATENT NUMBER:

FILING DATE: ISSUE DATE:

010730/0503 PAGE 2

MAURICE CARTER, EXAMINER ASSIGNMENT DIVISION OFFICE OF PUBLIC RECORDS

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Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Namagement and Budget, Paperwork Reduction Project (6s1-0o27), Washington, D.C. 20503. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to: Commissioner of Patents and Trademarks, Box Assignments , Washington, D.C. 20231

FORM PTO-1619B	Page 2	U.S. Department of Commerce Patent and Trademark Office						
Correspondent Name and Address	Area Code and Telephone Number	(213) 430-3520						
Name Viviana Amzel, Ph.D. (Reg. No.	30,930)							
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Address (line 2) Citicorp Plaza								
Address (time 3) 725 South Figueroa Street, Sulf	te 3400							
Address (line 4) Los Angeles, CA 90017-5434								
Pages Enter the total number of pagincluding any attachments.	ges of the attached conveyance document	# 4 pages total						
Patent Application Number(s) filled herewith If this document is being filed together with a new Patent signed by the first named executing inventor. Patent Cooperation Treaty (PCT) Enter PCT application number only if a U.S. Application Number has not been assigned. Number of Properties	Patent Number (DO NOT ENTER BOTH numbers for the	mber(s)						
Method of Payment: Enclos Deposit Account (Enter for payment by deposit account or if addit) De	sed X Deposit Account	x \$40.00 = \$80.00 01-2520						
Statement and Signature								
To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.								
Viviana Amzel, Ph.D.	Murand Dayel	April 4, 2000						
Name of Person Signing	Signature V	Date						

ASSIGNMENT

WHEREAS, Jonathan W. Nyce, a citizen of the United States of America, residing at 59 Sayre Drive, Princeton, New Jersey 08540, Assignor, has invented new and useful LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE, COMPOSITIONS, KIT & METHOD FOR TREATMENT OF AIRWAY DISORDERS ASSOCIATED WITH BRONCHOCONSTRICTION, LUNG INFLAMMATION, ALLERGY(IES) & SURFACTANT DEPLETION for which an application for United States Letters Patent was executed by him on or about the same date as this Assignment; and

WHEREAS, Assignor believes himself to be the original, first and sole inventor of the invention disclosed and claimed in the application for Letters Patent; and

WHEREAS, East Carolina University, a constituent institution of the University of North Carolina and an educational institution chartered under the laws of the State of North Carolina, having a principal place of operation at 210 Spilman Building, Greenville, North Carolina 27858-4353, Assignee, desires to acquire by formal, recordable assignment the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world;

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee, the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world, including the right to file foreign applications directly in the name of Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise.

Further, Assignor agrees that, upon request and without further compensation, but at no expense to Assignor, he and his legal representatives and assigns will perform all lawful acts, including the execution of papers and the giving of testimony, that might be necessary or desirable for obtaining, sustaining, reissuing or enforcing Letters Patent in the U.S. and throughout

throughout the world for the invention, and for perfecting, recording or maintaining the title of Assignee, its successors and assigns, to the invention, the application, and any Letters Patent granted for the invention in the United States and throughout the world.

Assignor represents and warrants that he has not granted and will not grant to others any rights inconsistent with the rights granted by this Assignment.

Assignor authorizes and requests the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the invention, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the invention.

Assignor further authorizes and requests insertion below of the serial number and filing date of the application, when officially known:

Serial No. $\frac{60/127,958}{}$

Filing Date 4/9/99

IN WITNESS WHEREOF, Assignor has executed this Assignment.

Date: 1/28/99

JONATHANW. NYCE

State of New Jersey
)

On this Bday of Jilow, in the year of 1999, before me personally appeared Jonathan Rigow, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged to me that he executed it.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year of this certificate first above written.

ctary Public in and for Szid M. RUGGIERO
County and State NOTARY PUBLIC OF N.J.
MY COMMISSION EXPIRES

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County of Middle Sox

ASSIGNMENT

WHEREAS, W. James Metzger, a citizen of the United States of America, residing at 238 windsor Road Greenville, NC 27858 , Assignor, has invented new and useful LOW ADENOSINE ANTI-SENSE OLIGONUCLEOTIDE, COMPOSITIONS, KIT & METHOD FOR TREATMENT OF AIRWAY DISORDERS ASSOCIATED WITH BRONCHOCONSTRICTION, LUNG INFLAMMATION, ALLERGY(IES) & SURFACTANT DEPLETION, for which an application for United States Letters Patent was executed by him on or about the same date as this Assignment; and

WHEREAS, Assignor believes himself to be the original, first and sole inventor of the invention disclosed and claimed in the application for Letters Patent; and

WHEREAS, East Carolina University, a constituent institution of the University of North Carolina and an educational institution chartered under the laws of the State of North Carolina, having a principal place of operation at 103 Spilman Building, Greenville, North Carolina 27858-4353, Assignee, desires to acquire by formal, recordable assignment the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world;

NOW, THEREFORE, in consideration of the sum of Ten Dollars (\$10.00) and of other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Assignor hereby sells, assigns and transfers to Assignee, the entire right, title and interest in and to the invention, the application, and any Letters Patent that might be granted for the invention in the United States and throughout the world, including the right to file foreign applications directly in the name of Assignee and to claim for any such foreign applications any priority rights to which such applications are entitled under international conventions, treaties or otherwise.

Further, Assignor agrees that, upon request and without further compensation, but at no expense to Assignor, he and his legal representatives and assigns will perform all lawful acts, including the execution of papers and the giving of testimony, that might be necessary or desirable for obtaining, sustaining, reissuing or enforcing Letters Patent in the United States and throughout the world for the invention, and for perfecting, recording or maintaining the title of

throughout the world for the invention, and for perfecting, recording or maintaining the title of Assignee, its successors and assigns, to the invention, the application, and any Letters Patent granted for the invention in the United States and throughout the world.

Assignor represents and warrants that he has not granted and will not grant to others any rights inconsistent with the rights granted by this Assignment.

Assignor authorizes and requests the Commissioner of Patents and Trademarks of the United States and of all foreign countries to issue any Letters Patent granted for the invention, whether on the application or on any subsequently filed division, continuation, continuation-in-part or reissue application, to Assignee, its successors and assigns, as the assignee of the entire interest in the invention.

Assignor further authorizes and requests insertion below of the serial number and filing date of the application, when officially known: Serial No. 60/127, 958 Filing Date 4/6/99

IN WITNESS WHEREOF, Assignor has executed this Assignment.

State of North Carolina County of in the year of 1999, before me personally

, personally known to me or proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to this instrument, and acknowledged to me that he executed it.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year of this certificate first above written.

> Notary Public in and for Said County and State

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